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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/639,804	08/17/2000	Kazuhiro Mino	2091-0215P	4984

7590 01/30/2004

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Falls Church, VA 22040-0747

EXAMINER

TRAN, TRANG U

ART UNIT	PAPER NUMBER
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2614

7

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/639,804

Applicant(s)

MINO, KAZUHIRO

Examiner

Trang U. Tran

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2000 and 02 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6,8-10,14,19,21-23,27,32 and 34-36 is/are pending in the application.
- 4a) Of the above claim(s) 2-5,7,11-13,15-18,20,24-26,28-31,33 and 37-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6,8-10,14,19,21-23,27,32 and 34-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of species IV, claims 1, 6, 8-10, 14, 19, 21-23, 27, 32 and 43-36 in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 8-10, 14, 21-23, 27 and 34-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Edgar (US Patent No. 5,265,200).

In considering claim 1, Edgar discloses all the claimed subject matter, note 1) the claimed the step of quantifying a sense of contrast of an image represented by image data, based on the image data is met by the build histogram 54 and the best fit curve 56 which is functionally altered in accordance with the best fit curve generated from the original image digitized at block 52 (Figs. 3 and 4, col. 9, line 20 to col. 13, line 56).

In considering claim 8, the claimed further comprising the step of carrying out image processing on the image data based on the sense of contrast is met by the corrected image according to best fit 60 which is resulting in a digital image corrected automatically for contrast (Figs. 3 and 4, col. 9, line 20 to col. 13, line 56).

In considering claim 9, the claimed wherein the image processing is at least one of tone conversion processing, frequency enhancing processing, AE processing and chroma conversion processing is met by the corrected image according to best fit 60 which is resulting in a digital image corrected automatically for contrast (Figs. 3 and 4, col. 9, line 20 to col. 13, line 56).

In considering claim 10, the claimed an image processing method comprising the step of carrying out image processing for changing luminance information of an image represented by image data on the image data based on color information of the image is met by the image processing which building of a histogram of gray scale levels for each pel from the captured image and the red, green and blue level will be determined (Figs. 6-9, col. 10, line 5 to col. 13, line 56).

Claim 14 is rejected for the same reason as discussed in claim 1.

Claim 21 is rejected for the same reason as discussed in claim 8.

Claim 22 is rejected for the same reason as discussed in claim 9.

Claim 23 is rejected for the same reason as discussed in claim 10.

Claim 27 is rejected for the same reason as discussed in claim 1.

Claim 34 is rejected for the same reason as discussed in claim 8.

Claim 35 is rejected for the same reason as discussed in claim 9.

Claim 36 is rejected for the same reason as discussed in claim 10.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2614

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 19 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edgar (US Patent No. 5,265,200) in view of Kluck et al (US Patent No. 6,388,679 B1).

In considering claim 6, Edgar discloses all the claimed subject matter, note 1) the claimed generating a histogram of the multi-resolution image data in each of the frequency bands is met by the build histogram 54 (Fig. 3, col. 9, line 20 to col. 10, line 64), and 2) the claimed quantifying the sense of contrast based on the luminance histogram and/or the color histogram in each of the frequency bands is met by the best fit curve 56 which is functionally altered in accordance with the best fit curve generated from the original image digitized at block 52 and the corrected image according to best fit 60 which is resulting in a digital image corrected automatically for contrast (Figs. 3 and 4, col. 9, line 20 to col. 13, line 56).

However, Edgar explicitly does not disclose the claimed obtaining multi-resolution image data in a plurality of frequency bands by converting the image data into multiple resolutions.

Kluck et al teach that high-level graphics commands are intercepted by a multi-resolution system mimicking a display driver, high-level graphics commands are interpolated using a resolution conversion ratio, modified high-level graphics commands are sent to the true display driver and an image is displayed at an apparent resolution

lower than the background resolution (see abstract, Fig. 6, col. 5, line 45 to col. 8, line 39).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the converting the image data into multiple resolutions as taught by Kluck et al. into Edgar's system in order to provide a system for simultaneously displaying different groups of computer data on a display screen at different resolutions.

Claim 19 is rejected for the same reason as discussed in claim 6.

Claim 32 is rejected for the same reason as discussed in claim 6.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Levene et al. (US Patent No. 5,743,266) disclose method for processing real-time contrast enhanced ultrasonic images.

Peli (US Patent No. 5,109,282) discloses halftone imaging method and apparatus utilizing pyramidal error convergence.

Anastassiou et al. (US Patent No. 4,695,884) disclose correction of shading effects in video images.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Trang U. Tran** whose telephone number is **(703) 305-0090**.

Application/Control Number: 09/639,804
Art Unit: 2614

Page 6

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W. Miller**, can be reached at **(703) 305-4795**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231


or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 308-HELP.

TT TT
January 25, 2004


MICHAEL H. LEE
PRIMARY EXAMINER